

# Geometry Unit 7 Review

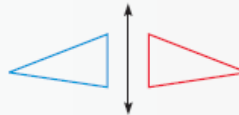
1. What is your name?

7.1

## RIGID MOTION IN A PLANE

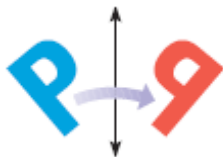
Examples on  
pp. 396–398

**EXAMPLE** The blue triangle is reflected to produce the congruent red triangle, so the transformation is an isometry.



Does the transformation appear to be an isometry? Explain.

2.



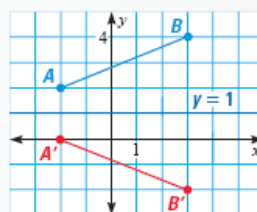
3.



4.

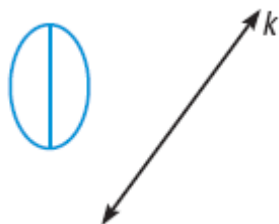


**EXAMPLE** In the diagram,  $\overline{AB}$  is reflected in the line  $y = 1$ , so  $\overline{A'B'}$  has endpoints  $A'(-2, 0)$  and  $B'(3, -2)$ .

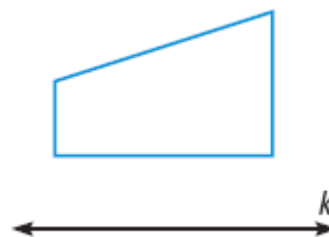


Sketch the reflection.

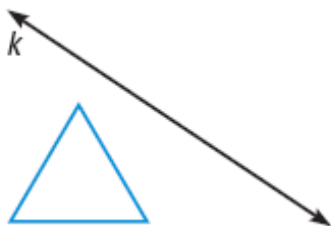
5.



6.



7.

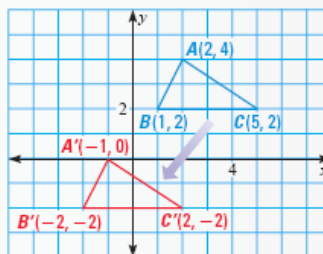


8. Which direction (clockwise or counterclockwise) is a rotation of  $60^\circ$ ?

**EXAMPLE**

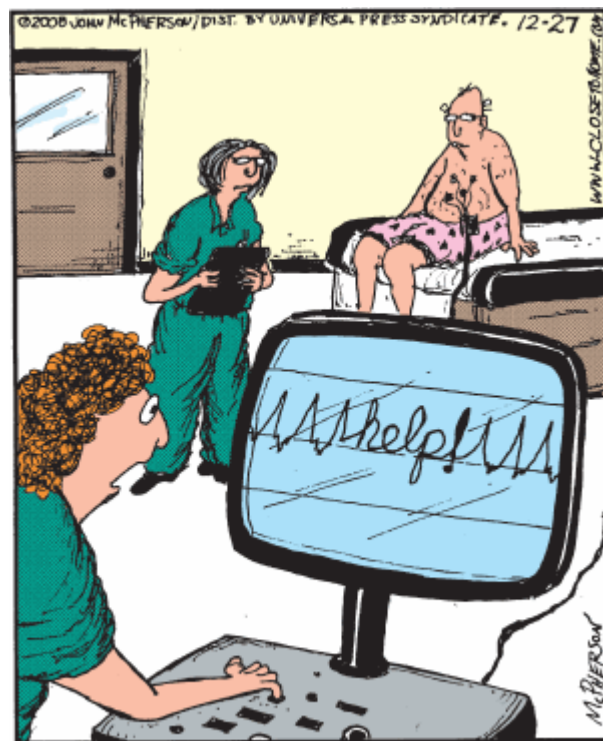
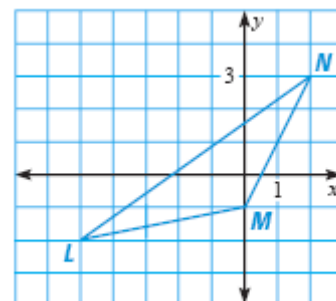
Using the vector  $\langle -3, -4 \rangle$ ,  $\triangle ABC$  can be translated to  $\triangle A'B'C'$ .

|           |              |
|-----------|--------------|
| $A(2, 4)$ | $A'(-1, 0)$  |
| $B(1, 2)$ | $B'(-2, -2)$ |
| $C(5, 2)$ | $C'(2, -2)$  |



9. The vertices of the image of  $\triangle LMN$  after a translation are given. Choose the vector that describes the translation.

|  |                                   |  |
|--|-----------------------------------|--|
|  | $L'(-1, -3), M'(4, -2), N'(6, 2)$ | A. $\overrightarrow{PQ} = \langle 0, 3 \rangle$  |
|  | $L'(-5, 1), M'(0, 2), N'(2, 6)$   | B. $\overrightarrow{PQ} = \langle -2, 5 \rangle$ |
|  | $L'(-3, 2), M'(2, 3), N'(4, 7)$   | C. $\overrightarrow{PQ} = \langle 4, -1 \rangle$ |
|  | $L'(-7, 3), M'(-2, 4), N'(0, 8)$  | D. $\overrightarrow{PQ} = \langle 2, 4 \rangle$  |



"Hey, Lori! Take a look at Mr. Geckler's EKG!"

# Geometry Unit 7 Review

7.5

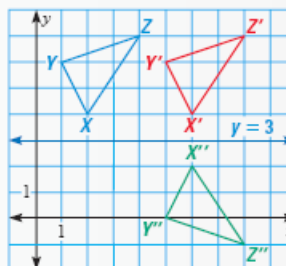
## GLIDE REFLECTIONS AND COMPOSITIONS

Examples on  
pp. 430-432

**EXAMPLE** The diagram shows the image of  $\triangle XYZ$  after a glide reflection.

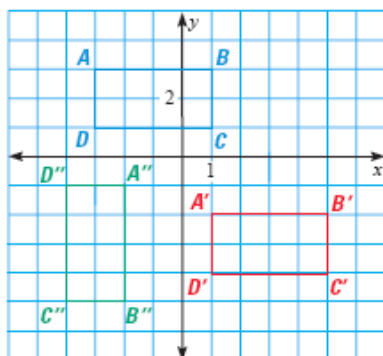
Translation:  $(x, y) \rightarrow (x + 4, y)$

Reflection: in the line  $y = 3$



Describe the composition of the transformations.

10.



11.

